

CLAIMS

I claim:

1. A multi-package module comprising stacked lower and upper packages, each said package including a die attached to a substrate, wherein the upper and lower substrates are interconnected by wire bonding, and wherein at least one said package comprises a stacked die package.
2. The multi-package module of claim 1 wherein the lower package comprises a stacked die package.
3. The multi-package module of claim 1 wherein each of the lower package and the upper package comprises a stacked die package.
4. The multi-package module of claim 1 wherein the upper package comprises a stacked die package.
5. The multi-package module of claim 1 wherein adjacent stacked die in the stacked die package are separated by a spacer.
6. The multi-package module of claim 1, further comprising a heat spreader over the second package.
7. A method for making a multi-package module, comprising
providing a stacked die first package,
providing a second package,
stacking the second package over the first package, and
forming electrical interconnects between the first package and the second package by wire bonding.
8. The method of claim 7 wherein providing a stacked die first package comprises testing stacked die packages for a performance and reliability requirement, and identifying a package that meets the requirement as a said first package.

9. The method of claim 7 wherein providing a second package comprises testing packages for a performance and reliability requirement, and identifying a package that meets the requirement as a said second package.
10. The method of claim 7 wherein providing a stacked die first package comprises providing an unsingulated strip of stacked die packages.
11. The method of claim 7 wherein providing a stacked die first package comprises providing a package comprising a first die affixed to a first package substrate, a second die affixed over the first die, and wire bond interconnects between said first and second die and said substrate.
12. The method of claim 11 wherein providing a stacked die first package comprises providing a package further comprising a spacer interposed between said first and said second die.
13. The method of claim 7, further comprising providing a heat spreader.
14. The method of claim 7, further comprising attaching second-level interconnect balls onto the first package substrate.
15. The method of claim 7, further comprising encapsulating the stacked packages on the module in a molding compound.
16. A mobile device comprising the multi-package module of claim 1.
17. A computer comprising the multi-package module of claim 1.